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Huang

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(54) METHOD AND SYSTEM FOR DIRECT RECORDING OF VIDEO INFORMATION ONTO A DISK MEDIUM

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(65) Prior Publication Data

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(51) Int. Cl.
H04N 5/46 (2006.01)

(52) U.S. Cl. 348/441

(58) Field of Classification Search 348/441, 348/443-449, 454, 455, 458-9
See application file for complete search history.

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(74) *Attorney, Agent, or Firm*—Townsend and Townsend and Crew LLP

(57) ABSTRACT

A method for converting video information from an incoming format to an outgoing format using a process free from one or more intermediary files. The method includes receiving video information in a first format and receiving a desired output media format based upon a first input and a desired TV standard based upon a second input. The method decodes the video information in the first format to raw video information in an uncompressed format and directly resizes the raw video information in the uncompressed format into a size associated with the desired output media format and the desired TV standard. The method adjusts the uncompressed format in the size associated with the desired output media format and the desired TV standard to a frame rate associated with the desired TV standard and encodes the uncompressed format in the size and the frame rate into an elementary video stream. A step of multiplexing the elementary video stream with audio information in the desired output media format and the desired TV standard to form video and audio information in a presentation format based upon the desired output media format and the desired TV standard is included.

18 Claims, 4 Drawing Sheets

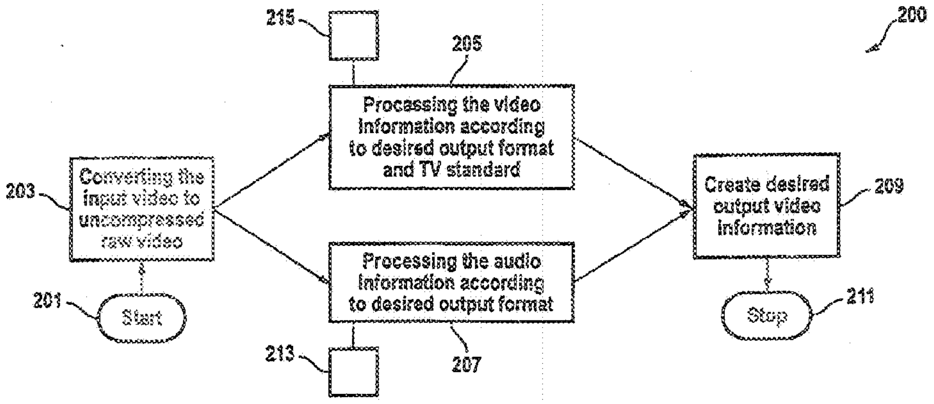
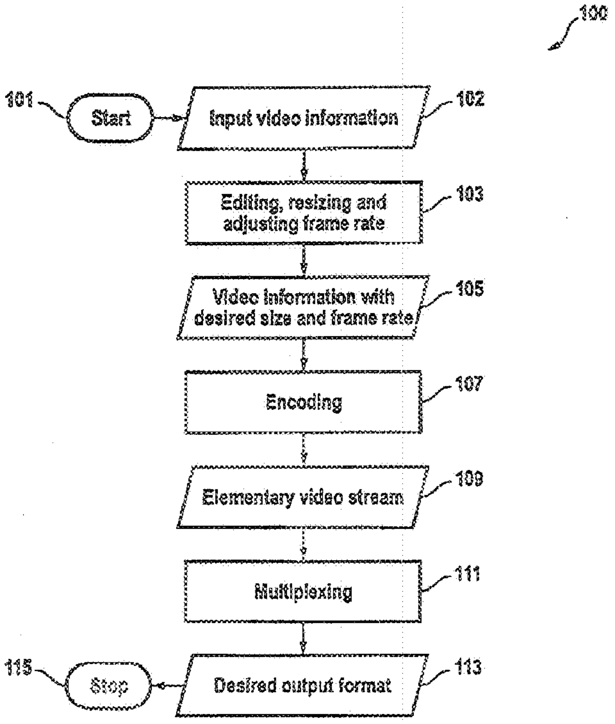
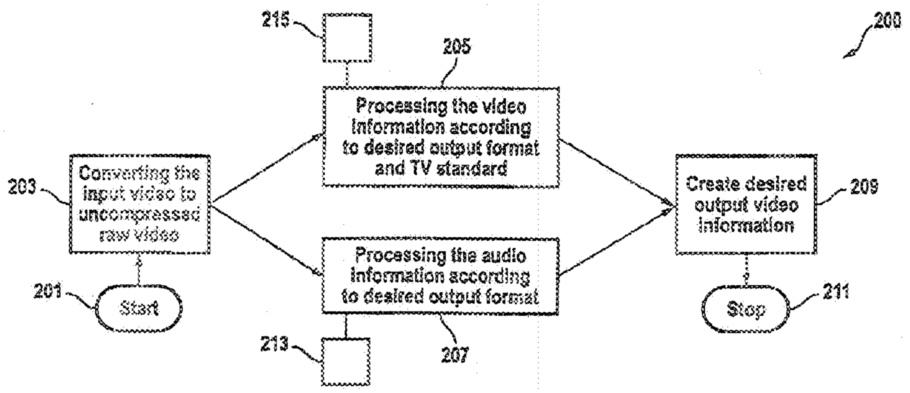

215
205
200
Processing the video information according to desired output format and TV standard
203
Converting the input video to uncompressed raw video
Create desired output video information
209
201
Start
Processing the audio information according to desired output format
Stop
211
213
207

EXHIBIT
tabbles
A



100
101
Start
Input video information
102
Editing, resizing and adjusting frame rate
103
Video information with desired size and frame rate
105
Encoding
107
Elementary video stream
109
Multiplexing
111
Desired output format
113
115
Stop

FIG. 1



200
215
205
Processing the video information according to desired output format and TV standard
203
Converting the input video to uncompressed raw video
Create desired output video information
209
201
Start
Processing the audio information according to desired output format
Stop
211
213
207

FIG. 2

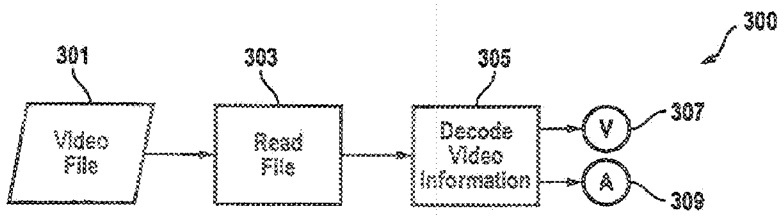

300
301
303
305
Video File
Read File
Decode Video Information
V
A
307
309

FIG. 3A

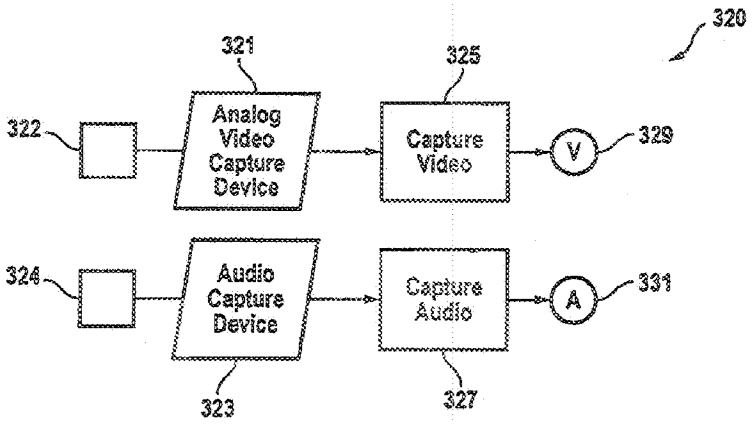

320
321
325
322
Analog Video Capture Device
Capture Video
V
329
324
Audio Capture Device
Capture Audio
A
331
323
327

FIG. 3B

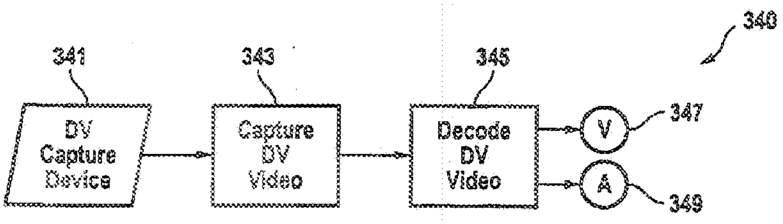

340
341
343
345
DV Capture Device
Capture DV Video
Decode DV Video
V
A
347
349

FIG. 3C

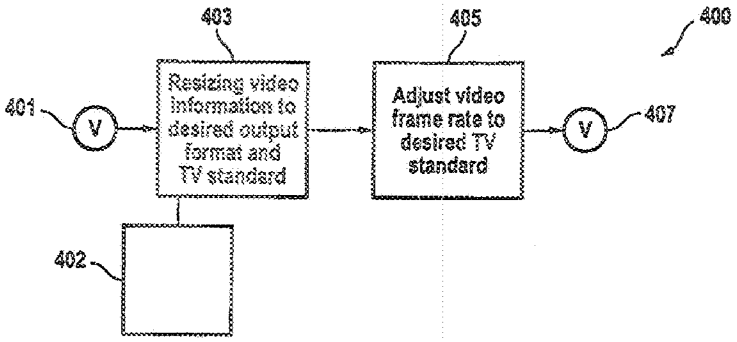

400
401
V
403
Resizing video information to desired output format and TV standard
405
Adjust video frame rate to desired TV standard
V
407
402

FIG. 4

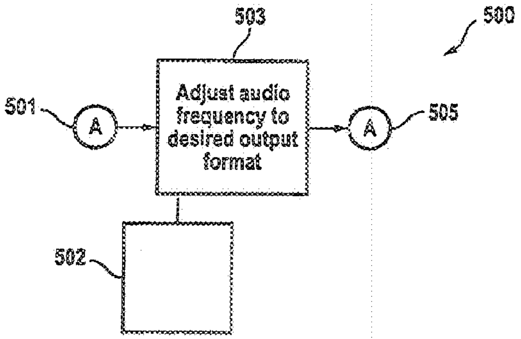

500
501
A
503
Adjust audio frequency to desired output format
A
505
502

FIG. 5

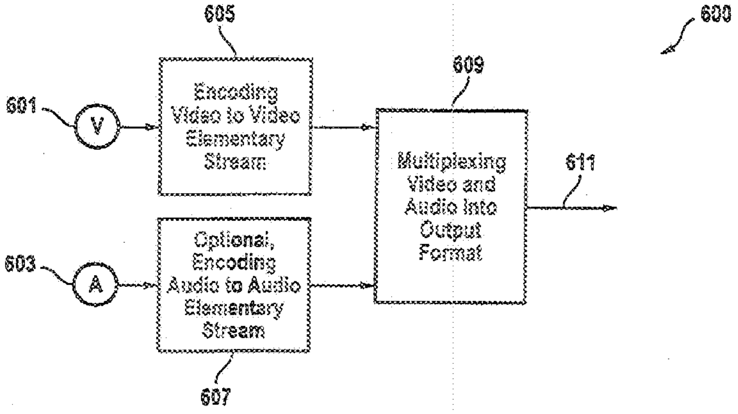

600
601
V
605
Encoding Video to Video Elementary Stream
603
A
Optional, Encoding Audio to Audio Elementary Stream
607
609
Multiplexing Video and Audio Into Output Format
611

FIG. 6